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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,891	03/04/2004	Keisuke Goto	01-578	4794
23400	7590	06/20/2005	EXAMINER	
POSZ LAW GROUP, PLC 12040 SOUTH LAKES DRIVE SUITE 101 RESTON, VA 20191			CHAPMAN JR, JOHN E	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/791,891	Applicant(s) GOTO, KEISUKE	
	Examiner John E. Chapman	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/4/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. The disclosure is objected to because of the following informalities:

Page 6, line 11, "10A" should be changed to --10X--.

Appropriate correction is required.

2. The following is a quotation of the first and second paragraphs of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3 are rejected under 35 U.S.C. 112, first and/or second paragraphs, as failing to comply with the enablement requirement and/or as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is not clear what is meant by "wirings connecting the fixed electrodes and the shared pads of the plurality of sensor chips are symmetrically formed." While it appears that the wirings connecting the fixed electrodes 1 and the shared pads 5a and 5b of the plurality of sensor chips 10X and 10Y in Fig. 2 are symmetrically formed, it is not apparent that the wirings connecting the fixed electrodes 1 and the shared pads 5a and 5b of the plurality of sensor chips 10X and 10Y in Fig. 1 are "symmetrically formed," as stated on page 6, lines 9-10. Hence, it is not clear that claims 1 and 2 read upon the embodiment of Fig. 1. It is also not clear that claims 1 and 3 read upon the embodiment of Fig. 3, since claim 1 recites a plurality of "shared pads" but Fig. 3 shows only a single shared pad 5a (15b).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 3, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Geen et al.

Geen discloses a capacitive-type semiconductor sensor in Fig. 3 comprising a plurality of sensor chips 152a-152d formed on a semiconductor substrate, each of the sensor chips having fixed electrodes 162a-162d and 164a-164d and movable electrodes attached to outer frames 156a-156d, wherein the fixed electrodes 162a and 162c are interconnected and the fixed electrodes 162b and 162d are interconnected (col. 5, lines 44-64). The only difference between the claimed invention and the prior art consists in providing pads for the interconnected electrodes. It is well known in the art to provide pads in order to connect electrodes to external circuitry, as taught by pads 5a-5c in Fig. 4 of the admitted prior art. It would have been obvious to one of ordinary skill in the art to provide a first pad for interconnected electrodes 162a and 162c and a second pad for interconnected electrodes 162b and 162d in order to connect the electrodes to external circuitry, such as DC voltage sources V_1 and V_2 in Fig. 2.

Regarding claim 3, sensor chips 152a and 152b are operable in reverse directions.

6. Claims 1 and 3, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al.

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Campbell discloses a capacitive-type sensor comprising a plurality of sensors 22 and 24, each sensor having fixed electrodes 32, 34 and 62, 64 and movable electrodes 30 and 60, wherein the fixed electrodes 32 and 62 are interconnected and the fixed electrodes 34 and 64 are interconnected. The only difference between the claimed invention and the prior art consists in forming the sensors 22 and 24 on a single semiconductor substrate and providing pads for the interconnected electrodes. It is well known in the art to form a capacitive-type sensor in a semiconductor substrate, as taught by Fig. 4 of the admitted prior art. It would have been obvious to one of ordinary skill in the art to form the sensors 22 and 24 on a single semiconductor substrate in order to provide a compact unit. It is well known in the art to provide pads in order to connect electrodes to external circuitry, as taught by pads 5a-5c in Fig. 4 of the admitted prior art. It would have been obvious to one of ordinary skill in the art to provide a first pad for interconnected electrodes 32 and 62 and a second pad for interconnected electrodes 34 and 64 in order to connect the electrodes to differential amplifier 42.

Regarding claim 3, sensors 22 and 24 are operable in reverse directions.


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Petersen et al. and Boura disclose a plurality of capacitive-type sensors formed on a single semiconductor substrate.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E. Chapman whose telephone number is (571) 272-2191. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron

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Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John E Chapman
Primary Examiner
Art Unit 2856